

CLAIMS

1/ A method of applying a coating such as a varnish or a paint on a hollow article, the method including the operation consisting in depositing a predetermined quantity of coating in the fluid state on the center of a surface of the article, and in spreading it by causing the article to revolve.

2/ A method according to claim 1, wherein the coating is without organic solvent.

3/ A method according to claim 1, wherein the coating is heated by being raised to a temperature higher than ambient temperature.

4/ A method according to claim 3, wherein the coating is heated to a temperature lying in the range 40°C to 50°C, and preferably 45°C.

5/ A method according to claim 1, wherein the surface on which the coating is deposited lies inside the article, and wherein the quantity of coating deposited is sufficient to enable it to rise under the effect of centrifugal force at least part of the way up the side wall of the article.

6/ A method according to claim 5, wherein the side wall of the article is, at least in part, parallel to the axis of rotation about which the article is rotated.

7/ A method according to claim 5, wherein the side wall of the article is stepped.

8/ A method according to claim 5, wherein the quantity of coating deposited on the bottom of the article is sufficient to enable it to cover the top edge of the article after rising up the side wall.

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5 9/ A method according to claim 5, wherein rotation of the article is stopped suddenly after the coating has spread by the desired amount.

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10 10/ A method according to claim 1, wherein the coating which spreads under the effect of centrifugal force is deposited on a surface which is itself substantially plane or slightly convex and is situated on the outside of the article.

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15 11/ A method according to claim 9, wherein, when the coating that is to be spread under the effect of centrifugal force is deposited, the speed of the article is zero or very small.

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20 12/ A method according to claim 10, wherein the coating is applied directly to the entire outside surface of the article which is not covered by said predetermined quantity of coating spreading under the effect of centrifugal force.

25 13/ A method according to claim 12, wherein direct application of the coating takes place simultaneously with rotation of the article.

30 14/ A method according to claim 12, wherein the direct application is performed by means of a nozzle (6) whose positioning and orientation are adjustable.

35 15/ A method according to claim 10, wherein the substantially plane or slightly convex surface is generally rectangular in shape when observed from above at the moment when it is set into rotation to spread the coating under the effect of centrifugal force, and wherein the means for applying the coating directly to the surface of the article comprise a nozzle that is

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downwardly inclined and situated slightly above the periphery of said substantially plane or slightly convex surface.

5 16/ A method according to claim 1, wherein a coating is used that is capable of being cured under the effect of ultraviolet radiation.

10 17/ A method according to claim 16, wherein the coating deposited on the article is caused to be cured while the article is still in rotation.

15 18/ A method according to claim 17, wherein the article is constituted by a container body, a container lid, a stopper, or a flask.

20 19/ Apparatus for applying a coating such as a paint or a varnish on an article having at least one surface that is substantially plane or slightly convex, the apparatus comprising:

25 • a rotary support for rotating the article;
 • a dispenser member for depositing a predetermined quantity of coating in the fluid state on a predetermined location of said surface; and
 • means for applying the coating directly on at least a portion of the surface of the article that is not covered by the coating being spread under the effect of centrifugal force.

30 20/ Apparatus according to claim 19, further comprising an enclosure within which the article is rotated and the coating is deposited.

35 21/ Apparatus according to claim 19, wherein the means for applying the coating directly comprise a nozzle whose inclination and positioning are adjustable relative to the rotary support.

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22/ Apparatus according to claim 19, including means for exposing the article to ultraviolet radiation.

5 23/ Apparatus according to claim 19, wherein the dispenser member is connected to a tank containing coating without organic solvent.

10 24/ Apparatus according to claim 19, including means for heating the coating.

15 25/ A painted or varnished hollow article, having a surface covered by a coating spread by the effect of centrifugal force.

20 26/ An article according to claim 25, including at least a portion of its surface which is covered by a coating deposited by direct application, preferably by delivery from a nozzle.

27/ An article according to claim 25, wherein the thickness of the deposited coating lies in the range 3 μm to 30 μm , and preferably in the range 8 μm to 25 μm .

25 28/ An article according to claim 25, constituting a container body, a container lid, a stopper, or a flask.

29/ An article according to claim 25, wherein the coating is a paint or varnish without organic solvent.

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